

Before the
Federal Communications Commission
Washington, DC 20554

<i>In the Matter of</i>)	
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996)	
)	
Commercial Availability of Navigation)	
Devices)	
)	
Compatibility Between Cable Systems and)	PP Docket No. 00-67
Consumer Electronics Equipment)	
)	

REPLY COMMENTS OF ALCATEL-LUCENT

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SUMMARY

Alcatel-Lucent encourages the Federal Communications Commission (“Commission”) to refrain from imposing cable-centric bidirectional plug and play requirements on non-cable multichannel video programming distributors (“MVPDs”). Instead, the Commission should focus its efforts on creating a framework for the development of a truly universal bidirectional plug and play standard applicable to all MVPDs.

Barring a transition towards a universal plug and play standard at this time, Alcatel-Lucent urges the Commission to resist calls to apply plug and play solutions devised by either the cable TV or consumer electronics industries to IPTV or QAM/IP-based video networks. In recognizing the technological differences between cable and non-cable MVPD technology, the Commission must appreciate that existing plug and play standards cannot represent a “one size fits all” solution. The nascent IPTV and QAM/IP industries must be afforded the opportunity to address standardization issues, including network-device compatibility, without being saddled with bidirectional plug and play rules designed by cable TV and consumer electronics companies for cable systems. Once achieved, the Commission should pursue universal two-way plug and play compatibility.

By allowing the nascent IPTV industry to undertake its own standards processes before regulating, the Commission can uphold its dual Section 629 obligations to foster competition in the video marketplace while also ensuring the commercial availability of navigation devices.

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REPLY COMMENTS OF ALCATEL-LUCENT

I. INTRODUCTION

Alcatel-Lucent respectfully submits the following reply comments in the above-captioned proceeding.¹ Alcatel-Lucent is an international provider of telecommunications equipment and a world leader in next generation broadband infrastructure. Alcatel-Lucent provides a broad portfolio of communications solutions to a wide range of customers in 130 countries worldwide and is a world-leader in IPTV technology. In addition to having deployed dozens of IPTV networks around the world, Alcatel-Lucent is the systems integrator for AT&T's U-verse TV IPTV network, one of the largest IPTV build-outs to date in the world. Alcatel-

¹ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Third Further Notice of Proposed Rulemaking (rel. June 29, 2007) ("FNPRM").

Lucent is also a leading vendor of Gigabit Passive Optical Network (GPON) equipment to Verizon for its FiOS network.

As discussed herein, Alcatel-Lucent voices its concern with both the National Cable and Telecommunications Association (“NCTA”)² and Consumer Electronics Association (“CEA”)³ two-way plug and play proposals. Alcatel-Lucent has no opinion on the merits of either proposal with respect to cable television platforms, as Alcatel-Lucent has not been a participant in the ongoing cable-consumer electronics (“CE”) plug and play negotiations. With respect to new MVPD platforms such as AT&T’s IPTV platform or Verizon’s Quadrature Amplitude Modulation/Internet Protocol (“QAM/IP”) Fiber-to-the-Home (FTTH)-based platform, both the NCTA and CEA proposals should be rejected as inappropriate standards for those networks. Cable-centric proposals cannot readily be applied to IPTV or QAM/IP networks.

Furthermore, the NCTA and CEA proposals were developed through negotiations between cable and consumer electronics (“CE”) companies with little or no input from new competitive video service providers to which the Commission is considering applying two-way plug and play standards once they are finalized. Alcatel-Lucent urges the Commission to recognize that the video services market is radically different than it was when the cable and CE industries began their plug

² Letter from Daniel L. Brenner, Sr. Vice President, Law & Regulatory Policy, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (Filed Nov. 30, 2005) (“NCTA Proposal”).

³ Letter from Brian Markwalter, Vice President, Technology and Standards, Consumer Electronics Association, et al., to Marlene H. Dortch, Secretary, Federal Communications Commission (Filed Nov. 7, 2006) (“CEA Proposal”).

and play negotiations years ago. Through no fault of any stakeholder, many interested parties to this proceeding simply were not in the business of creating and deploying competitive video networks at the time cable and CE industries commenced their negotiations.

Alcatel-Lucent appreciates that a change in focus from cable-centric standards to universal standards would require a considerable delay in any Commission action to adopt industry-devised bidirectional plug and play standards. However, such a delay will be unavoidable, as non-cable MVPDs necessarily must address both standards specific to their platforms, as well as bidirectional plug and play standards for those networks. Both sets of activities are underway, and must be concluded prior to the launch of a universal plug and play effort.

Alcatel-Lucent applauds the Commission's dedication to increasing competition in the video marketplace. Should the Commission determine a delay is not an option at this time, or should the Cable TV industry prefer the implementation of a cable-only bi-directional plug and play standard to a delay in favor of a universal standard, Alcatel-Lucent urges the Commission to exempt non-cable MVPD networks from any standards resulting from this proceeding at this time.

II. THE COMMISSION SHOULD CONSIDER EFFORTS TO ACHIEVE A TRULY UNIVERSAL BI-DIRECTIONAL PLUG AND PLAY STANDARD.

Alcatel-Lucent urges the Commission to delay any regulatory action arising out of this proceeding to create and adopt bidirectional plug and play standards at this time in favor of a new effort among all video service stakeholders to create

technology neutral, universal, industry-negotiated standards for bidirectional plug and play.

New, cutting edge technologies, such as IPTV and QAM/IP FTTH-based video platforms are being deployed to millions of American consumers. As Alcatel-Lucent previously noted in the Commission's video franchise reform proceeding, "[a]s new providers, including ILECs, enter the video market and provide a triple play of offerings, cable operators will need to introduce 'innovative new technology and services' using a next-generation network to remain competitive."⁴ A robust competitive video landscape will result in greater broadband deployment through infrastructure investment among all MVPDs.⁵ The Commission itself has demonstrated great leadership in supporting new competition by removing barriers to video market entry through video franchise reform, and is currently assessing how it may ensure incumbent cable operators are not disadvantaged as this new competition unfolds.⁶ Consistent with its leadership in promoting a competitive video marketplace, the Commission's efforts to implement Section 629 of the Communications Act⁷ necessitates a re-imagining of the plug and play concept. Promoting competition in the video market and promoting the commercial

⁴ Report and Order and Further Notice of Proposed Rulemaking, *Implementation of Section 621(a)(1) of the Cable Communications Act*, Reply Comments of Alcatel-Lucent, MB Docket No. 05-311, at 5 (Filed April 20, 2007).

⁵ Id.

⁶ Report and Order and Further Notice of Proposed Rulemaking, *Implementation of Section 621(a)(1) of the Cable Communications Act*, MB Docket No. 05-311, (Rel. March 5, 2007).

⁷ 47 U.S.C. § 549(a).

availability of navigation devices requires the creation of a plug and play concept that works with all MVPD networks and consumer electronics equipment.

In its comments, Verizon expresses its support for a universal plug and play standard to be developed among and applied uniformly across all MVPDs noting that, “[the Commission] .. should further innovation and competition by encouraging industry standards-setting efforts that will lead to standards for two-way devices that are compatible with all providers, regardless of their technological approach to delivering video services [on] their platform.”⁸ Alcatel-Lucent agrees with Verizon that a universally implemented standard for MVPD-CE compatibility is preferable in the long-run to a fractured marketplace. However, Alcatel-Lucent believes that non-cable MVPDs must be afforded a chance to develop their own solutions independent of cable-centric standards for plug and play interoperability before attempting to achieve universal interoperability. Alcatel-Lucent urges the Commission to consider delaying any further regulatory action in this proceeding as a means of giving non-cable MVPDs time to address the requirements of their own platforms through negotiation with the CE industry, which have already begun.⁹

Alcatel-Lucent fully appreciates that its own interests in this request stem from its position as the leading manufacturer of IPTV platforms worldwide, including its work on AT&T’s U-verse network and Verizon’s FiOS network.

⁸ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of Verizon, PP Docket No. 00-67, at 2 (“Verizon Comments”) (filed August 24, 2007).

⁹ *See Infra*

Alcatel-Lucent prefers a universal delay leading to a universal solution that serves the interests of all stakeholders. However, Alcatel-Lucent realizes that cable and CE stakeholders may not support such a delay, given the amount of time and effort they have invested into devising cable-centric bidirectional plug and play standards. To this end, Alcatel-Lucent defers to cable TV operators on the question of whether a delay in the adoption of bi-directional plug and play rules specific to cable TV networks in favor of a new process to create universal plug and play rules for all MVPDs is preferable. The cable TV industry has invested over \$100 billion to deploy digital cable networks, broadband services, and the triple play to their subscribers.¹⁰ The video market is entering an era of greater competition than ever before, and the Commission's first order of business should be to first do no harm in this new environment. Just as the application of cable-centric rules to non-cable MVPDs would be technologically infeasible and anticompetitive from the perspective of new entrants, forcing cable-centric rules upon the cable TV industry at a time when a universal standard is clearly foreseeable is similarly anticompetitive.

Again, Alcatel-Lucent is sensitive to the years of effort applied toward creating Cable-CE plug and play standards in the video market, as well as reluctance by many if not all Cable and CE stakeholders, as well as the Commission, to contemplate a substantial delay in favor of universal standards

¹⁰ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of Comcast Corporation, PP Docket No. 00-67, at 23 (filed August 24, 2007) ("Comcast Comments").

setting activities. However, as the market and technology are changing, Alcatel-Lucent encourages all stakeholders – public and private – to recognize the most consumer-friendly approach to plug and play may be to spare consumers potential confusion spurred by a fractured plug and play market, in favor of a new, universal solution.

III. THE COMMISSION SHOULD REFUSE TO IMPOSE THE CEA AND NCTA PROPOSALS ON NON-CABLE VIDEO SERVICE PROVIDERS.

Alcatel-Lucent agrees with numerous comments filed in this proceeding urging the Commission to refrain from imposing a set-top box compatibility regime on non-cable MVPDs that was designed by cable and consumer electronics companies for digital cable systems.¹¹ To do so would be to impose financial and technical burdens on nascent video systems at a crucial point in the development of competitive MVPDs such as AT&T's U-verse TV and Verizon's FiOS service.¹² As AT&T states, "[m]andating an OCAP-based standard would require a complete redesign of AT&T's system."¹³ According to Verizon, implementation of the NCTA proposal to its FTTH network would "...require expensive equipment at each end-user location in order to implement DOCSIS over RF..."¹⁴ Other burdensome requirements of the NCTA proposal for FiOS includes the required use of an RF

¹¹ See e.g., *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of AT&T Inc., PP Docket No. 00-67, at 4 ("AT&T Comments") (filed August 24, 2007); See also Verizon Comments at 8.

¹² *Id.*, at 7-8; See also Verizon Comments at 9-10.

¹³ AT&T Comments at 8.

¹⁴ Verizon Comments, at 9.

return path which is not needed in Verizon's QAM/IP architecture, and the reliance of the proposal on proprietary chipset technology, portions of which must be licensed by CableLabs itself. Verizon asserts that the NCTA proposal would, "...unreasonably burden new entrants at a time when they are attempting to compete... and would harm consumers by slowing the rollout of advanced technologies or increasing the cost of these services."¹⁵ For its part, Microsoft agrees, stating that, "[t]he IPTV industry is still young and is still evolving technologically. Microsoft believes that these fundamental architectural differences must be taken into account when setting rules for achieving the goals of Section 629."¹⁶ Alcatel-Lucent agrees with Microsoft's view that, "the Commission should adopt rules that suit each network technology."¹⁷

Due to inherent differences between the interface and design of new MVPD networks and cable systems, it is not practical to impose a cable-centric bidirectional plug and play standard on IPTV or QAM/IP-based providers. Clearly this upheaval would be both costly and would ignore the warnings of the authors of Section 629, which implore the Commission to, "avoid actions which could have the

¹⁵ Id., at 9-10.

¹⁶ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of Microsoft, PP Docket No. 00-67, at 2 (Filed August 24, 2007) ("Microsoft Comments").

¹⁷ Id.

effect of freezing or chilling the development of new technologies and services.”¹⁸

The Commission’s own interpretation of Section 629 acknowledges that certain technologies may require different regulatory treatment in this regard.¹⁹ In its *First Report and Order* on the issue of availability of navigation devices, the Commission is careful to point out that, “...the broad goals of this proceeding extend beyond making navigation equipment commercially available, but in fulfilling the promise of the digital age to bring broader choices and opportunities to a wider group of consumers.”²⁰ If delay in the emergence of any standard or regulation from this proceeding is unacceptable at this time, the Commission would best serve the needs of consumers by finding – just as it did for DBS providers – that regulatory intervention specific to new MVPDs is unnecessary at this juncture given that nascent MVPDs, such as AT&T and Verizon, have every incentive to promote the availability of equipment that meets consumers’ needs in order to gain market share.²¹

Even CEA and Time Warner, stakeholders with a clear interest in the uniform adoption of their preferred solutions to MVPD-CE plug and play, acknowledge that a different course of action is warranted with respect to non-cable MVPDs.

¹⁸ *Implementation of Section 304 of the Telecommunications Act of 1996*, Report and Order, 13 FCC Rcd 14775, ¶ 16, 23 (Rel. June 24, 1998) (“First Report and Order”); quoting S. Conf. Rep. 104-230 at 181 (Rel. February 1, 1996).

¹⁹ First Report and Order at ¶ 22.

²⁰ Id. at ¶ 16.

²¹ Id. ¶ 65.

CEA acknowledges that the fundamental differences of IP warrant a less aggressive timeline for two-way interoperability as it applies to non-cable MVPDs. CEA notes that, “[t]he Commission has recognized in its waiver determinations that additional time may be necessary for the implementation of IP solutions in the navigation context. Any such solution and schedule should not detract from achieving the proximate cable-related goals, now in process for a decade, cited by the Commission in the FNPRM, on the schedule that the Commission aims to achieve.”²²

Time Warner Cable’s comments, which generally call for the NCTA proposal to be applied to all MVPDs, acknowledge that the Commission may be able to fulfill its duties under Section 629 while also granting leeway to non-cable MVPDs writing, “[w]hile TWC believes that the Commission should pursue a universal all-MVPD solution, adoption of the OpenCable Platform together with *a requirement for other MVPDs to work with CE manufacturers to develop comparable solutions also would enable the Commission to implement Section 629 in a lawful manner.*”²³

Many comments to this proceeding explain to the Commission that the negotiations between the cable and CE industries took place without participation by new MVPDs. AT&T notes in its comments that, “[n]either AT&T nor any of its

²² *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of the Consumer Electronics Association, PP Docket No. 00-67, at 15 (filed August 24, 2007) (“CEA Comments”).

²³ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of Time Warner Cable Inc., PP Docket No. 00-67, at 22 (Filed August 24, 2007) (emphasis added).

predecessors participated in the discussion leading to the one-way standards agreement codified in the *Plug and Play Order*.²⁴ Microsoft in its comments cites the need for a new framework designed to foster cooperation between IPTV, cable, and the CE industry, noting that, “[t]he Commission’s role is not to pick the technology solution for creating bi-directional cable-ready devices, but instead to take on the important job of creating a framework that enables network operators and third parties to figure out a technology solution and then implement it in a transparent and fair manner.”²⁵ Accordingly, the imposition of cable-centric standards to competitive MVPDs will have the effect of favoring cable-based architecture and services over those of competitive MVPDs, resulting in a skewed playing field for video services.

Some comments filed in this proceeding urge the Commission to consider the relative size and wealth of competitive MVPDs as a chief measure of a provider’s overall ability to comply immediately with the set-top box integration ban.²⁶ This metric is inappropriate. The relative size and health of non-cable MVPDs bears little relationship to their ability to develop, ratify and comply with a common set-top box standard, let alone one developed exclusively for cable TV systems. Rather, as demonstrated by the long-lasting Cable-CE negotiations, it can take years of effort to arrive at a workable standard. One might argue that the revamped non-

²⁴ AT&T Comments, at 6.

²⁵ Microsoft Comments, at 10.

²⁶ See e.g., *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumers Electronics Equipment*, Comments of Time Warner Cable, PP Docket No. 00-67, at 4 (Filed August 24, 2007); see also Comcast Comments, at 19.

cable MVPD industry is fortunate to have capable companies such as AT&T and Verizon seeking to provide innovative new competitive video services, since creating a competitive video service serving millions of American consumers from the ground up – from building out a wireline network to aggregating content – requires a commitment of capital that only the most vigorous of companies can achieve.

IV. NON-CABLE MVPD-CE PLUG AND PLAY EFFORTS ALREADY UNDERWAY PROVIDE THE BEST FORUM FOR ADDRESSING NEW NETWORK AND DEVICE COMPATIBILITY.

Alcatel-Lucent applauds the hard work undertaken by the CE and cable industries to develop Cable-CE plug and play standards. However, Alcatel-Lucent encourages the Commission to afford non-cable MVPDs the same opportunity to address standardization efforts for their networks, as well as plug and play regimes specific to them, as were afforded to the cable TV industry. . Non-cable MVPDs are already engaged in network standardization efforts, which include plug and play standards, under the auspices of the Alliance for Telecommunications Industry Solutions (ATIS).

First created in 2005, ATIS' IPTV Interoperability Forum ("IIF") was created to, "...enable the interoperability, interconnection, and implementation of IPTV systems/services by developing ATIS standards and facilitating related technical activities."²⁷ Via a 2006 agreement between ATIS and CEA, CEA's Oversight and Coordination Committee ("OCC") is specifically focusing on two-way plug and play

²⁷ See ATIS IIF at <http://www.atis.org/iif/>

standards for IPTV systems.²⁸ As AT&T points out in its comments, the ATIS/CEA agreement seeks to develop, "...a set of common protocols for IPTV equipment, including [set-top boxes] or IPTV-ready television receivers."²⁹ Separately, ATIS has also created the IP-Based Separable Security Incubator ("ISSI"), which is tasked with developing standards for QAM/IP plug and play solutions.³⁰

While Alcatel-Lucent acknowledges that these separate ATIS-sponsored efforts are not "universal" plug and play efforts, they are critical for ensuring standardization of new MVPD networks, as well as addressing plug and play issues specific to them. This is a critical first step prior to the creation of a new, universal plug and play process inclusive of all stakeholders.

The Commission should respect the innate differences between existing cable networks and new non-cable MVPD networks, and permit new MVPDs to determine how best to achieve the goals of Section 629 of the Act through inter-industry cooperation with the CE industry.

V. CONCLUSION

The Commission should refrain from imposing cable-centric bidirectional plug and play standards on non-cable MVPDs in favor of a new inter-industry process required to create a universal, bidirectional plug and play standard

²⁸ "ATIS and CEA Sign Liaison Agreement to Support IPTV Activities," <http://www.atis.org/PRESS/pressreleases2006/081606.htm>.

²⁹ AT&T Comments, at 12.

³⁰ See ATIS ISSI at <http://www.atis.org/issi/>

applicable to all MVPDs and CE devices. Required non-cable MVPD compliance with cable-centric plug and play standards would circumvent the Commission's deliberate efforts to spur competition in the video marketplace. Conversely, forcing the cable industry alone to adopt a cable-only bidirectional plug and play standard would also circumvent the Commission's efforts to create greater competition in the video market.

The Commission can continue to foster robust competition in the video marketplace by ensuring that nascent broadband video service providers have the opportunity to standardize new MVPD networks, such as IPTV and QAM/IP, and address plug and play requirements specific to those technologies. This approach both complies with the goals of Section 629 and can lay a

foundation for future efforts among all stakeholders to device universal plug and play standards that address the needs of all stakeholders, and best serve consumer interests.

Respectfully Submitted,

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